

WHAT IS CLAIMED IS:

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1. An electronic apparatus, comprising:
  - an abnormality detector detecting an
  - abnormality when the abnormality occurs;
  - an abnormality type determination part
  - 10 determining a type of the abnormality detected by said
  - abnormality detector; and
  - an abnormality notification part for informing
  - an external apparatus of the abnormality when the type
  - of the abnormality determined by said abnormality type
  - 15 determination part represents an abnormality that cannot
  - be eliminated by a user of said electronic apparatus.

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2. The electronic apparatus as claimed in
- claim 1, further comprising:
  - a use request reception part receiving a
  - request for using one or more functions; and
  - 25 an abnormality display part that, in a case

where the type of abnormality determined by the  
abnormality type determination part represents an  
abnormality in a predetermined function, displays that  
the abnormality is occurring only when a request for  
5 using the predetermined function is received by the use  
request reception part.

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3. The electronic apparatus as claimed in  
claim 1, further comprising:

a non-volatile storage part; and

an abnormality history writing part for  
15 writing history of the abnormality to said non-volatile  
storage part when the type of the abnormality determined  
by the abnormality type determination part represents an  
abnormality that requires only history saving.

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4. The electronic apparatus as claimed in  
claim 1, further comprising:

25 an abnormality counter for counting the number

of times of occurrence of an abnormality; and

an abnormality counter controller for causing  
said abnormality counter to up count when the type of  
the abnormality determined by the abnormality type

5 determination part represents an abnormality that can be  
eliminated by the user of the electronic apparatus,

wherein the abnormality notification part  
includes means for informing the external apparatus of a  
corresponding abnormality when a count value of the  
10 abnormality counter reaches a predetermined value.

15 5. The electronic apparatus as claimed in  
claim 4, further comprising:

means for displaying occurrence of an  
abnormality when the count value of the abnormality  
counter has not reached the predetermined value.

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6. The electronic apparatus as claimed in  
25 claim 4, further comprising:

a reset part resetting the count value of the abnormality counter when the count value thereof reaches the predetermined value.

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7. The electronic apparatus as claimed in claim 4, further comprising:

10 an image forming part forming an image on a recording medium;

a sheet counter counting the number of sheets each having an image thereon formed by said image forming part since the abnormality that can be  
15 eliminated by the user of the electronic apparatus is detected by the abnormality detector until the abnormality is detected again; and

a reset part for resetting the count value of the abnormality counter when a count value of said sheet  
20 counter reaches the predetermined value.

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8. The electronic apparatus as claimed in

claim 4, further comprising:

means for causing the electronic apparatus to reboot when the count value of the abnormality counter has not reached the predetermined value.

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9. The electronic apparatus as claimed in  
10 claim 8, further comprising:

means for displaying that reboot is to be performed before the electronic apparatus is caused to perform reboot.

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10. A remote management system remotely  
managing a plurality of electronic apparatuses by a  
20 management apparatus via a communication line,  
comprising:

the plurality of electronic apparatuses; and  
the management apparatus,

wherein each of the electronic apparatuses

25 includes:

an abnormality detector detecting an abnormality when the abnormality occurs in the electronic apparatuses;

an abnormality type determination part  
5 determining a type of the abnormality detected by said abnormality detector; and

an abnormality notification part for informing the management apparatus of the abnormality, together with identification information of one or more of the  
10 electronic apparatuses in which the abnormality occurs, when the type of the abnormality determined by said abnormality type determination part represents an abnormality that cannot be eliminated by a user of said one or more of the electronic apparatuses.

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11. The remote management system as claimed in  
20 claim 10, wherein each of the electronic apparatuses further includes:

an abnormality counter counting the number of times of occurrence of an abnormality; and

an abnormality counter controller for causing  
25 said abnormality counter to up count when the type of

the abnormality determined by the abnormality type determination part represents an abnormality that can be eliminated by the user of the electronic apparatus, and

wherein the abnormality notification part of  
5 each of the electronic apparatuses includes means for informing the management apparatus of a corresponding abnormality together with identification information of the electronic apparatus in which the abnormality occurs, when a count value of said abnormality counter reaches a  
10 predetermined value.

15 12. The remote management system as claimed in claim 11, wherein each of the electronic apparatuses further includes means for displaying that an abnormality is occurring when the count value of the abnormality counter has not reached the predetermined  
20 value.

25 13. The remote management system as claimed in

claim 11, wherein each of the electronic apparatuses further includes a reset part for resetting the count value of the abnormality counter when the count value thereof reaches the predetermined value.

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14. The remote management system as claimed in  
10 claim 11, wherein each of the electronic apparatuses further includes:

an image forming part forming an image on a recording medium;

a sheet counter for counting the number of  
15 sheets each having an image thereon formed by said image forming part since the abnormality that can be eliminated by the user of the electronic apparatus is detected by the abnormality detector until the abnormality is detected again; and

20 a reset part resetting the count value of the abnormality counter when a count value of said sheet counter reaches a predetermined value.

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15. The remote management system as claimed in claim 11, wherein each of the electronic apparatuses further includes:

5           means for causing the electronic apparatus to reboot when the count value of the abnormality counter has not reached the predetermined value.

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16. The remote management system as claimed in claim 15, wherein each of the electronic apparatuses further includes:

15           means for displaying that reboot is to be performed before the electronic apparatus is caused to perform reboot.

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17. A method of controlling an electronic apparatus, said method comprising the steps of:

          detecting an abnormality when the abnormality  
25   occurs in the electronic apparatus;

determining a type of the detected  
abnormality; and

informing an external apparatus of the  
abnormality when the determined type of the abnormality  
5 represents an abnormality that can not be eliminated by  
a user of the electronic apparatus.

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18. The method as claimed in claim 17, further  
comprising the step of:

displaying, in a case where the determined  
type of the abnormality represents an abnormality in a  
15 predetermined function, that the abnormality is  
occurring, only when a request for using the  
predetermined function is received.

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19. The method as claimed in claim 17, further  
comprising the step of:

saving history of the abnormality when the  
25 determined type of the abnormality represents an

abnormality that requires only history saving.

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20. The method as claimed in claim 17, further comprising the steps of:

up counting a count value when the determined type of the abnormality represents an abnormality that  
10 can be eliminated by the user of the electronic apparatus; and

informing the external apparatus of a corresponding abnormality when the count value reaches a predetermined value.

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21. The method as claimed in claim 20,  
20 further comprising the step of:

displaying that an abnormality is occurring when the count value has not reached the predetermined value.

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22. The method as claimed in claim 20, further comprising the step of:

5           resetting the count value when the count value thereof reaches the predetermined value.

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23. The method as claimed in claim 20, further comprising the step of:

          causing the electronic apparatus to reboot when the count value has not reached the predetermined  
15   value.

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24. The method as claimed in claim 23, further comprising the step of:

          displaying that reboot is to be performed before the electronic apparatus is caused to perform  
25   reboot.

5           25. A program for causing a computer to  
control an electronic apparatus, said program comprising  
the instructions of:

causing the computer to detect an abnormality  
when the abnormality occurs in the electronic apparatus;

10           causing the computer to determine a type of  
the detected abnormality; and

causing the computer to inform an external  
apparatus of the abnormality when the type of the  
abnormality is determined to represent an abnormality  
15 that cannot be eliminated by a user of the electronic  
apparatus.

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26. The program as claimed in claim 25,  
further comprising the instructions of:

causing the computer to receive a request for  
using one or more functions of the electronic apparatus;

25 and

causing the computer to display that the abnormality is occurring, in a case where the type of abnormality is determined to represent an abnormality in a predetermined function, and only when a request for  
5 using the predetermined function is received.

10 27. The program as claimed in claim 25,  
further comprising the instruction of:

causing the computer to save history of the abnormality when the type of the abnormality is determined to represent an abnormality that requires  
15 only history saving.

20 28. The program as claimed in claim 25,  
further comprising the instructions of:

causing the computer to count the number of times of occurrence of an abnormality in the electronic apparatus;

25 causing the computer to up count when the type

of the abnormality is determined to represent an abnormality that can be eliminated by the user of the electronic apparatus; and

causing the computer to inform the external apparatus of a corresponding abnormality when a count value reaches a predetermined value.

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29. The program as claimed in claim 28, further comprising the instruction of:

causing the computer to display occurrence of an abnormality when the count value has not reached the predetermined value.

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30. The program as claimed in claim 28, further comprising the instruction of:

causing the computer to reset the count value when the count value thereof reaches the predetermined value.

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31. The program as claimed in claim 28,  
5 further comprising the instructions of:

causing the computer to form an image on a  
recording medium;

causing the computer to count the number of  
sheets each having an formed image thereon since the  
10 abnormality that can be eliminated by the user of the  
electronic apparatus is detected until the abnormality  
is detected again; and

causing the computer to reset the count value  
when a count value of the number of sheets reaches a  
15 predetermined value.

20 32. The program as claimed in claim 28,  
further comprising the instruction of:

causing the computer to cause the electronic  
apparatus to reboot when the count value of the number  
of times of occurrence of an abnormality has not reached  
25 the predetermined value.



5           33. The program as claimed in claim 32,  
further comprising the instruction of:

causing the computer to display that reboot is  
to be performed before the electronic apparatus is  
caused to perform reboot.

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          34. A processor-readable medium storing a  
15 program for causing a computer to control an electronic  
apparatus, said program comprising the instructions of:

causing the computer to detect an abnormality  
when the abnormality occurs in the electronic apparatus;

causing the computer to determine a type of  
20 the detected abnormality; and

causing the computer to inform an external  
apparatus of the abnormality when the type of the  
abnormality is determined to represent an abnormality  
that cannot be eliminated by a user of the electronic  
25 apparatus.

5           35. The processor-readable medium storing the  
program as claimed in claim 34, wherein the program  
further comprises the instructions of:

          causing the computer to receive a request for  
using one or more functions of the electronic apparatus;  
10   and

          causing the computer to display that the  
abnormality is occurring, in a case where the type of  
abnormality is determined to represent an abnormality in  
a predetermined function, and only when a request for  
15   using the predetermined function is received.

20           36. The processor-readable medium storing the  
program as claimed in claim 34, wherein the program  
further comprises the instruction of:

          causing the computer to save history of the  
abnormality when the type of the abnormality is  
25   determined to represent an abnormality that requires

only history saving.

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37. The processor-readable medium storing the program as claimed in claim 34, wherein the program further comprises the instructions of:

causing the computer to count the number of  
10 times of occurrence of an abnormality;

causing the computer to up count when the type of the abnormality is determined to represent an abnormality that can be eliminated by the user of the electronic apparatus; and

15 causing the computer to inform the external apparatus of a corresponding abnormality when a count value reaches a predetermined value.

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38. The processor-readable medium storing the program as claimed in claim 37, wherein the program further comprises the instruction of:

25 causing the computer to display occurrence of

an abnormality when the count value has not reached the predetermined value.

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39. The processor-readable medium storing the program as claimed in claim 37, the program further comprises the instruction of:

10 causing the computer to reset the count value when the count value thereof reaches the predetermined value.

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40. The processor-readable medium storing the program as claimed in claim 37, wherein the program further comprises the instructions of:

20 causing the computer to form an image on a recording medium;

causing the computer to count the number of sheets each having an formed image thereon since the abnormality that can be eliminated by the user of the  
25 electronic apparatus is detected until the abnormality

is detected again; and

causing the computer to reset the count value  
when a count value of the number of sheets reaches a  
predetermined value.

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41. The processor-readable medium storing the  
10 program as claimed in claim 37, wherein the program  
further comprises the instruction of:

causing the computer to cause the electronic  
apparatus to reboot when the count value of the number  
of times of occurrence of an abnormality has not reached  
15 the predetermined value.

20 42. The processor-readable medium storing the  
program as claimed in claim 41, wherein the program  
further comprises the instruction of:

causing the computer to display that reboot is  
to be performed before the electronic apparatus is  
25 caused to perform reboot.